

REMARKS

Summary of Office Action

Claims 1-30 and 34-75 are pending in this application.

The Examiner allowed claims 26-30 and 34-50.

The Examiner objected to claims 8, 11-18, 58, and 61-68 for being dependent upon a rejected base claim, but indicated that these claims would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

The Examiner finally rejected claims 1, 4, 5, and 19-25 under 35 U.S.C. § 102(b) as being anticipated by Cotrel U.S. Patent No. 5,601,552 (hereinafter "Cotrel"). Dependent claims 2 and 3 were finally rejected under 35 U.S.C. § 103(a) as being obvious from Cotrel in view of Ashman et al. U.S. Patent No. 5,209,752 (hereinafter "Ashman"). Dependent claims 6, 7, 9, and 10 were finally rejected under 35 U.S.C. § 103(a) as being obvious from Cotrel in view of Van Hoeck et al. U.S. Patent No. 5,423,818 (hereinafter "Van Hoeck").

The Examiner finally rejected claims 51, 54-57, 59, 60, and 69-75 under 35 U.S.C. § 103(a) as being obvious from Cotrel in view of Van Hoeck. Dependent claims 52 and 53 were finally rejected under 35 U.S.C. § 103(a) as being obvious from Cotrel in view of Van Hoeck and further in view of Ashman.

Summary of Applicants' Reply

Applicants appreciate the allowance of claims 26-30 and 34-50 and the indication that claims 8, 11-18, 58, and 61-68 contain allowable subject matter.

Applicants have proposed amending dependent claims 4, 21, 22, 24, 25, 46, 47, 49, 50, 71, 72, 74, and 75 to correct minor informalities and typos not affecting the patentability of those claims. Because no additional search or consideration should be required, applicants respectfully request entry of these amendments.

No new matter has been added.

Reconsideration of this application in view of the following remarks is respectfully requested.

Rejections of Claims 1-7, 9, 10, and 19-25 Under 35 U.S.C. §102(b) and §103(a)

Claims 1, 4, 5, and 19-25 were rejected under 35 U.S.C. § 102(b) as being anticipated by Cotrel. Dependent claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as being obvious from Cotrel in view of Ashman. And dependent claims 6, 7, 9, and 10 were rejected under 35 U.S.C. § 103(a) as being obvious from Cotrel in view of Van Hoeck.

These rejections are respectfully traversed.

Independent claim 1 requires a pair of universal joints for interconnecting the hook members with the lateral rod.

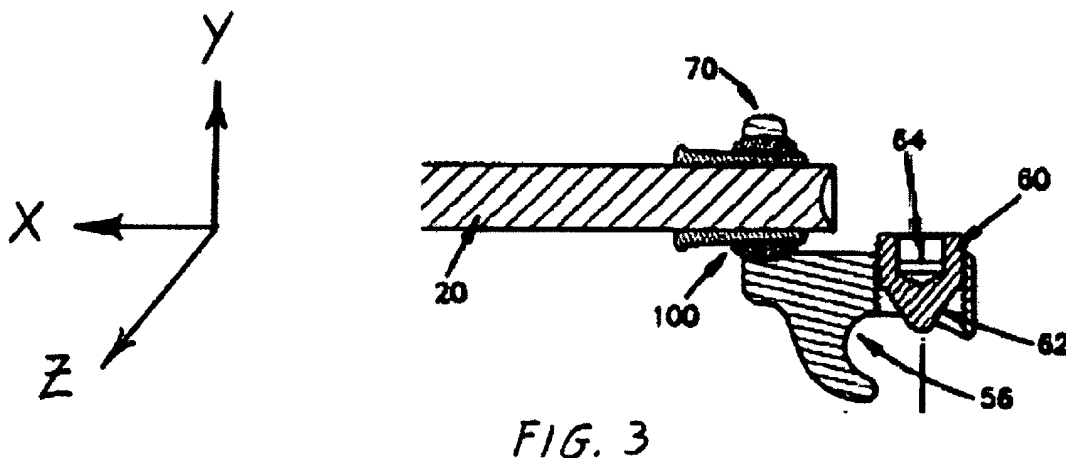
The Examiner said that applicants' previous arguments regarding the "universal" joints are not persuasive in that Cotrel still meets the claim limitations, "as universal would be considered a functional characteristic, and the art still reads specifically on the structure of the claim" (October 11, 2006 final Office Action, page 2).

Applicants respectfully disagree.

The term “universal joint” does not apply to every type of joint that receives a rigid rod.

A representative definition of a “universal joint” is “a joint in a rigid rod that allows the rod to ‘bend’ in any direction” (emphasis added).*

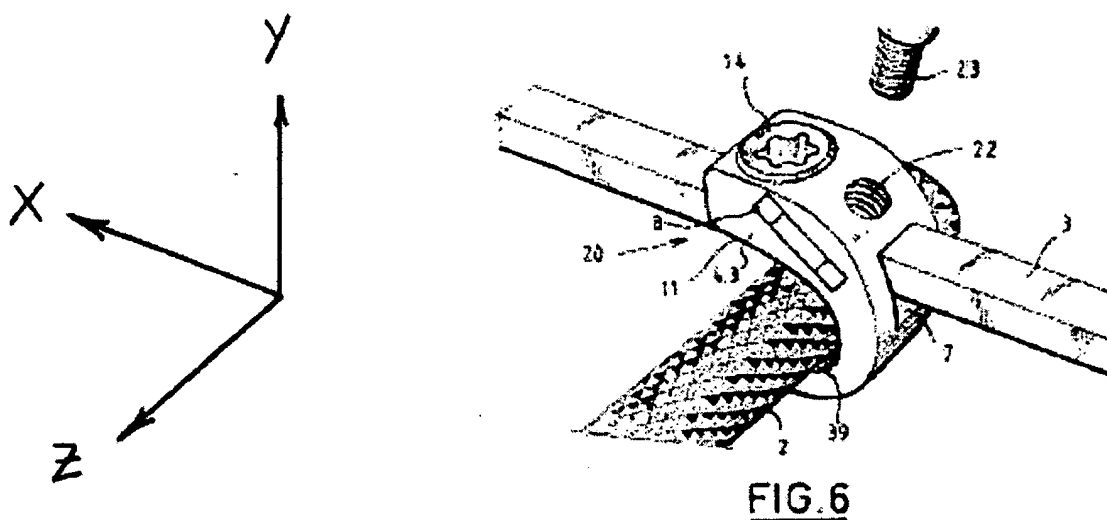
Applicants’ locking element 100, as supported in applicants’ specification and drawings, fully comports with this definition. Applicants’ locking element 100 allows rod 20 to “bend” in any direction. That is, as shown below in the portion of applicants’ FIG. 3, locking element 100 allows rod 20 to move in the X-axis direction, the Y-axis direction, and the Z-axis direction -- in other words, in any direction.



Cotrel’s hooks 1 and 20 are not “universal joints.”

* Wikipedia, the free encyclopedia; http://en.wikipedia.org/wiki/Universal_joint.

In contrast, Cotrel's hooks 20(1) (shown in Cotrel's FIG. 5) do not allow transverse bar 3 to "bend" in any direction. As better shown in Cotrel's FIG. 6 below, hook 20 purportedly allows transverse bar 3 to move in the X-axis direction and the Y-axis direction, but not in the Z-axis direction. Thus, Cotrel's hooks are not universal joints.



Moreover, even if the Examiner were to cite evidence -- which he has not -- that the term "universal joint" includes devices that provide only two degrees of movement (e.g., movement in only the X- and Y-axis directions and not the Z-axis direction), applicants' submit that Cotrel still does not anticipate claim 1, because the term "universal joint" as recited in claim 1 and as used and supported in applicants' specification and drawings defines a joint that provides three degrees of movement (i.e., movement in the X-, Y-, and Z-axis directions).

As such, applicants' universal joints plainly are structurally different from Cotrel's hooks 1 and 20 in order to allow applicants' rod 20 to move in any direction while Cotrel's transverse bar 3 is limited by the hooks' structure to movement in only two directions.

Thus, independent claim 1 is not anticipated by Cotrel and should be allowable.

For at least these reasons, dependent claims 2-7, 9, 10, and 19-25, which depend directly or indirectly from independent claim 1, should also be allowable (i.e., dependent claims are allowable if their independent claim is allowable).

Accordingly, applicants respectfully request that the rejections of claims 1-7, 9, 10, and 19-25 under 35 U.S.C. §102(b) and §103(a) be withdrawn.

Rejections of Claims 51-57, 59, 60, and 69-75 Under 35 U.S.C. § 103(a)

The Examiner rejected claims 51, 54-57, 59, 60, and 69-75 under 35 U.S.C. § 103(a) as being obvious from Cotrel in view of Van Hoeck. Dependent claims 52 and 53 were rejected under 35 U.S.C. § 103(a) as being obvious from Cotrel in view of Van Hoeck and further in view of Ashman

These rejections are respectfully traversed.

Independent claim 51 defines a transconnector that includes “a pair of locking elements ... sized and configured to provide universal movement between the hook members and the lateral rod” (emphasis added).

As discussed similarly above regarding claim 1, this limitation (“to provide universal movement”) results in a structural difference between the claimed invention and Cotrel, because not all locking elements are structured to provide universal movement.

Cotrel’s hooks 1 and 20 provide only translational movement in the X-axis direction and angular movement in the Y-axis direction (*see* again Cotrel’s FIG. 6 above). In

contrast to applicants' locking elements, there is no structure in Cotrel's hooks 1 and 20 that enables transverse bar 3 to also move angularly in the Z-axis direction.

Van Hoeck was cited to show that conical sleeves 120 and 130 and rod channel 82 have respective convex outer and concave inner surfaces that are slidably engageable.

Thus, Van Hoeck plainly does not make up for the deficiencies of Cotrel.

Accordingly, the combination of Cotrel and Van Hoeck would not result in applicants' invention as defined in independent claim 51, and therefore, claim 51 is not obvious from that combination and should thus be allowable.

And for at least these reasons, dependent claims 52-57, 59, 60, and 69-75, which depend directly or indirectly from claim 51, are also not obvious from the combination of Cotrel and Van Hoeck (i.e., dependent claims are patentable if their independent claim is patentable).

Accordingly, applicants respectfully request that the rejections of claims 51-57, 59, 60, and 69-75 under 35 U.S.C. §103(a) be withdrawn.

Objections to Claims 8, 11-18, 58, and 61-68

Claims 8, 11-18, 58, and 61-68 were objected to for being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

These objections are respectfully traversed.

For at least the reasons discussed above with respect to independent claim 1, dependent claims 8 and 11-18, which depend directly or indirectly from claim 1, should also be allowable (i.e., dependent claims are allowable if their independent claim is allowable).

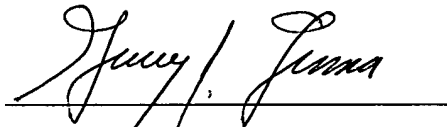
And for at least the reasons discussed above with respect to independent claim 51, dependent claims 58 and 61-68, which depend directly or indirectly from claim 51, should also be allowable (i.e., dependent claims are allowable if their independent claim is allowable).

Accordingly, applicants respectfully request that the objections to claims 8, 11-18, 58, and 61-68 be withdrawn.

Conclusion

The foregoing demonstrates that claims 1-30 and 34-75 are allowable. This application is therefore in condition for allowance. Reconsideration and allowance are accordingly respectfully requested.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Garry J. Tuma", is written over a horizontal line.

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